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10/566,500	01/31/2006	Soeong-Hun Kim	50655	7124

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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/566,500	KIM ET AL.	
	Examiner	Art Unit	
	MOHAMMAD ANWAR	4125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *1/31/06* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 10/566,500.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/31/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because Figures 1-11 should be labeled with a proper descriptive legends such as UE (user equipment), RLC (Radio Link Controller). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. Figures 1-5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The specification is objected to because of the following informalities:

Add a PCT and Korean application reference priority in the first paragraph of the specification

Appropriate correction is required.

Claim Objections

4. Claims 7 and 8 are objected to because of the following informalities:

In claim 7 line 4 recites "a MBMS ID field" which seems to refer to "a MBMS ID field" in claim 6 line 4. If this is true, it is suggested to change "a MBMS ID field" to ---the MBMS ID field----.

Claim 8 is objected because it is dependent on claim 7.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 12 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12 line 15 recites "the target channel type field" which has no antecedent basis.

Claim 13 is rejected because it is dependent on claim 12.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-4, 9, 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarkkinen et al. (20030211855) in view of Yi et al. (20040057387).

For claims 1 & 9, Sarkkinen et al. disclose a method for generating a frame transmitting broadcasting data in a radio network controller of a mobile communication system transmitting logical channels (see paragraph 16 lines 1-10), which include a broadcasting service transport channel transmitting the broadcasting data according to a broadcasting service and a broadcasting service control channel transmitting control information according to the broadcasting service (see paragraph 11 lines 1-6, paragraph 17 lines 1-9), to one or more user equipments located in each cell through a transport channel (see paragraph 42 lines 1-6), the method comprising the steps of: determining at least one logical channel to be transmitted through one transport channel (see paragraph 16 lines 9-11), but contains a payload for transmitting the broadcasting data (see paragraph 49 line 18), when one broadcasting service transport channel is determined as the logical channel (see paragraph 17 lines 64-66, paragraph 49 lines 13-18). Sarkkinen et al. disclose all the subject matter but fails to mention generating a frame which does not contain a target channel type field (TCTF) and a MBMS ID field. However, Yi et al. from a similar field of endeavor disclose generating a frame which

does not contain a target channel type field (TCTF) and a MBMS ID field (see paragraph 143 line 5). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Yi et al. MBMS id field and TCF id scheme in the header of a packet into Sarkkinen et al. broadcast scheme. The method can be implemented in the packet header. The motivation of doing this is to add or delete multimedia broadcast/multicast services.

For claim 2, Sarkkinen et al. disclose, when multiple broadcasting service transport channels are determined as the logical channel (see paragraph 16 lines 23-33), and the payload for transmitting the broadcasting data (see paragraph 49 line 18), when multiple broadcasting service transport channels are determined as the logical channel (see paragraph 17 lines 22-32). Sarkkinen et al. disclose all the subject matter but fails to mention a step of generating a frame containing the MBMS ID field. However, Yi et al. from a similar field of endeavor disclose a step of generating a frame containing the MBMS ID field (see paragraph 144 lines 1-21). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Yi et al. MBMS id field in the header of a packet into Sarkkinen et al. broadcast scheme. The method can be implemented in the packet header. The motivation of doing this is to have MBMS data and services that can be identified.

For claim 3, Sarkkinen et al. disclose a step of generating a frame containing the target channel type field (see paragraph 53 lines 3-5), and the payload for transmitting the broadcasting data (see paragraph 17 lines 1-2), when one or more broadcasting service transport channels and other logical channels are determined as the logical

channel (see paragraph 17 lines 64-66, paragraph 49 lines 13-18, paragraph 20 lines 1-4). Sarkkinen et al. disclose all the subject matter but fails to mention the MBMS ID field. However, Yi et al. from a similar field of endeavor disclose the MBMS ID field (see paragraph 59 lines 1-2). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Yi et al. MBMS id field in the header of a packet into Sarkkinen et al. broadcast scheme. The method can be implemented in the packet header. The motivation of doing this is to have MBMS data and services that can be identified.

For claims 4 & 10 &13, Sarkkinen et al. disclose a step of, before transmitting the frame, transmitting a target channel type field identity (see paragraph 13 lines 4-5) , to the user equipment through the broadcasting service control channel (see paragraph 42 lines 1-6). Sarkkinen et al. disclose all the subject matter but fails to mention transmitting a target channel type field identity and a MBMS ID identity, which represents whether or not the target channel type field and the MBMS ID field are contained in the frame. However, Yi et al. from a similar field of endeavor disclose transmitting a target channel type field identity and a MBMS ID identity (see paragraph 146 lines 10-19), which represents whether or not the target channel type field and the MBMS ID field are contained in the frame (see paragraph 143 lines 1-9). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Yi et al. MBMS identification field in the header of a packet into Sarkkinen et al. broadcast scheme. The method can be implemented in the packet header. The motivation of doing this is to have MBMS data or services that can be identified.

For claim 12, Sarkkinen disclose a method for generating a frame transmitting broadcasting data in a radio network controller of a mobile communication system transmitting logical channels (see paragraph 16 lines 1-10), which include a broadcasting service transport channel transmitting the broadcasting data according to a broadcasting service and a broadcasting service control channel transmitting control information according to the broadcasting service (see paragraph 11 lines 1-6, paragraph 17 lines 1-9), to one or more user equipments located in each cell through a transport channel (see paragraph 42 lines 1-6), the method comprising the steps of: determining at least one logical channel to be transmitted through one transport channel (see paragraph 16 lines 9-11); generating a payload for transmitting the broadcasting data (paragraph 49 line 18), when one broadcasting service transport channel is determined as the logical channel (see paragraph 49 lines 13-18), and a payload for transmitting the broadcasting data (see paragraph 49 line 18), when multiple broadcasting service transport channels are determined as the logical channel (see paragraph 49 lines 13-18); and the payload for transmitting the broadcasting data (see paragraph 49 line 18), when one or more broadcasting service transport channels and other logical channels are determined as the logical channel (see paragraph 17 lines 64-66, paragraph 49 lines 13-18, paragraph 20 lines 1-4). Sarkkinen et al. disclose all the subject matter but fails to mention generating a frame containing a MBMS ID field, generating a frame containing the target channel type field, the MBMS ID field. However, Yi et al. from a similar field of endeavor disclose generating a frame containing a MBMS ID field, and generating a frame containing the target channel type

field (see paragraph 143 line 9), the MBMS ID field (see paragraph 143 line 9). The method can be implemented in the packet header. The motivation of doing this is to properly identify the MBMS data for user equipment.

11. Claims 5-8, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over unpatentable by Sarkkinen et al. in view of Yi et al. and further in view of Chang et al. (7286563).

For claim 5, Sarkkinen et al. disclose a method for receiving a frame including broadcasting data from a radio network controller in a user equipment of a mobile communication system receiving logical channels (see paragraph 39 lines 3-6, paragraph 27 lines 1-10), which include a broadcasting service transport channel transmitting the broadcasting data according to a broadcasting service and a broadcasting service control channel transmitting control information according to the broadcasting service, through a transport channel (see paragraph 11 lines 1-11). Sarkkinen et al. and Yi et al. disclose all the subject matter but fails to mention the method comprising the steps of: confirming a logical channel multiplexing option used in the frame through the broadcasting service control channel; setting a processing path of the frame by the logical channel multiplexing option; and processing the frame through the set processing path. However, Chang et al. from a similar field of endeavor disclose the method comprising the steps of: confirming a logical channel multiplexing option used in the frame through the broadcasting service control channel (see column 7 lines 13-18); setting a processing path of the frame by the logical channel multiplexing option

(see column 7 lines (see column 8 lines 15-22); and processing the frame through the set processing path (see column 9 lines 14-17).Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Chang et al. logical channel multiplexing scheme into Sarkkinen et al. broadcast scheme and Yi et al. identification scheme. The method can be implemented in the hardware and software. The motivation of doing this is to distinguish the common logical channels.

For claim 6, Sarkkinen et al. disclose all the subject matter but fails to mention wherein, when it is confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting only one broadcasting service transport channel through one transport channel, a function block for processing a target channel type field and a MBMS ID field is excluded from the processing path. However, Yi et al. from a similar field of endeavor disclose a function block for processing a target channel type field and a MBMS ID field is excluded from the processing path (see paragraph 143 line 5). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Yi et al. MBMS id field and TCF scheme in the header of a packet into Sarkkinen et al. broadcast scheme. The method can be implemented in the packet header. The motivation of doing this is to identify the MBMS data. Sarkkinen et al. and Yi et al. disclose all the subject matter but fails to mention wherein, when it is confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting only one broadcasting service transport channel through one transport channel. However, Chang et al. from a similar field of endeavor disclose wherein, when it is confirmed that the logical channel multiplexing option is a logical

channel multiplexing option transmitting only one broadcasting service transport channel through one transport channel (see column 7 lines 13-17). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Chang et al. logical channel multiplexing scheme into Sarkkinen et al. broadcast scheme and Yi et al. identification scheme. The method can be implemented in the hardware and software. The motivation of doing this is to distinguish the common logical channels.

For claims 7 & 8, Sarkkinen et al. disclose all the subject matter but fails to mention wherein, when it is confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting multiple broadcasting service transport channels through one transport channel, a function block for processing a MBMS ID field constituting the message is contained in the processing path. However, Yi et al. from a similar field of endeavor disclose a function block for processing a MBMS ID field constituting the message is contained in the processing path (see paragraph 143 lines 10-14, paragraph 144 lines 1-9). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Yi et al. MBMS id field scheme into Sarkkinen et al. broadcast scheme. The method can be implemented in the packet header. The motivation of doing this is to add new service or new user equipment. Sarkkinen et al. and Yi et al. disclose all the subject matter but fails to mention wherein, when it is confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting multiple broadcasting service transport channels through one transport channel. However, Chang et al. disclose wherein, when it is

confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting multiple broadcasting service transport channels through one transport channel (see column 7 lines 13-17). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Chang et al. logical channel multiplexing scheme into Sarkkinen et al. broadcast scheme and Yi et al. identification scheme. The method can be implemented in the hardware and software. The motivation of doing this is to distinguish the common logical channels.

For claim 11, Sarkkinen et al. disclose a method for receiving a frame including broadcasting data from a radio network controller in a user equipment of a mobile communication system receiving logical channels (see paragraph 16 lines 14-17), which include a broadcasting service transport channel transmitting the broadcasting data according to a broadcasting service (see paragraph 25 lines 1-7) and a broadcasting service control channel transmitting control information according to the broadcasting service (see paragraph 16 lines 1-8), through a transport channel (see paragraph 15 lines 10). Sarkkinen et al. disclose all the subject matter but fails to mention the method comprising the steps of: confirming a logical channel multiplexing option used in the frame through the broadcasting service control channel; setting a processing path excluding function blocks for processing a target channel type field and a MBMS ID field, when it is confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting only one broadcasting service transport channel through one transport channel; setting a processing path so that the function block for processing the target channel type field is excluded and the function block for

processing the MBMS ID field is contained, when it is confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting multiple broadcasting service transport channels through one transport channel; setting a processing path so that the function blocks for processing the target channel type field and the MBMS ID field are contained, when it is confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting at least one broadcasting service transport channel and other logical channels through one transport channel; and processing the frame through the set processing paths. However, Yi et al. from a similar field of endeavor disclose setting a processing path excluding function blocks for processing a target channel type field and a MBMS ID field (see paragraph 143 line 5), setting a processing path so that the function block for processing the target channel type field is excluded and the function block (see paragraph 143 line 5) for processing the MBMS ID field is contained (see paragraph 144 lines 1-2), setting a processing path so that the function blocks for processing the target channel type field and the MBMS ID field are contained (see paragraph 143 line 5). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Yi et al. MBMS id field in the header of a packet into Sarkkinen et al. broadcast scheme. The method can be implemented in the packet header. The motivation of doing this is to have MBMS data identified. Sarkkinen et al. and Yi et al. disclose all the subject matter but fails to mention when the method comprising the steps of: confirming a logical channel multiplexing option used in the frame through the broadcasting service control channel (see column 7 lines 13-16), when it is confirmed that the logical channel

multiplexing option is a logical channel multiplexing option transmitting only one broadcasting service transport channel through one transport channel (see column 8 lines 19-20), when it is confirmed that the logical channel multiplexing option is a logical channel multiplexing option transmitting multiple broadcasting service transport channels through one transport channel (see column 8 lines 16-20). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Chang et al. logical channel multiplexing scheme into Sarkkinen et al. broadcast scheme and Yi et al. identification scheme. The method can be implemented in the hardware and software. The motivation of doing this is to distinguish the common logical channels.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chang et al. (7359345) and Burnett et al. (5444702).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD ANWAR whose telephone number is (571)270-5641. The examiner can normally be reached on Monday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on 571-272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MOHAMMAD ANWAR
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